

Section I (Amendments to the Claims)

Please amend claim 5 as set out in the following listing of the claims of the application.

Please add new claims 11 and 12 as set forth below.

1. (Previously presented) A protein chip of a S-L-SP form comprising a solid substrate (S) and a substrate peptide (SP) immobilized on the solid substrate (S) by a linker protein (L) of leptin or malic enzyme, wherein the substrate peptide is fused with the linker protein in the form of a peptide monomer, a dimer of monomer-proline-monomer, or a multimer where monomers are linked to each other by a proline.
2. (Cancelled)
3. (Cancelled)
4. (Previously presented) The protein chip according to claim 1, wherein the peptide monomer comprises kemptide (SEQ ID NO: 1) or Ab1 (SEQ ID NO: 8).
5. (Currently amended) The protein chip according to claim 1, wherein the solid substrate comprises a side slide with exposed aldehyde.
6. (Previously presented) A method for analyzing the interaction between a reactive protein and its substrate peptide using the protein chip of claim 1, comprising the steps of:
 - (a) adding a reactive protein to the protein chip, the reactive protein showing a specific interaction with the substrate peptide immobilized on the protein chip; and
 - (b) detecting the interaction between the reactive protein and the substrate peptide.
7. (Previously presented). The method according to claim 6, wherein the reactive protein comprises an enzyme or an antibody.
8. (Withdrawn) The method according to claim 7, wherein the enzyme comprises protein kinase A or Ab1 kinase.
9. (Original) The method according to claim 6, wherein the step of detecting the interaction between the substrate peptide and the reactive protein is carried out by using a fluorescence labeled antibody.

10. (Withdrawn) The method according to claim 8, wherein the step of detecting a phosphorylation of the substrate peptide by kinase is carried out by using a Cy3-labeled anti-phosphorylation serine antibody or a Cy5-labeled anti-phosphorylation tyrosine antibody.
11. (New) The protein chip according to claim 1, wherein the substrate peptide is fused with the linker protein in the form of a dimer of monomer-proline-monomer.
12. (New) The protein chip according to claim 1, wherein the substrate peptide is fused with the linker protein in the form of a multimer where monomers are linked to each other by a proline.